cART (70.6 vs 72.3%) at vaccination. At the beginning of the 5th year of follow-up, the CD4 count has increased to 582 and 602 cells/mm^3 in the 1- and 2-dose group, respectively; and the proportion of plasma HIV RNA load<20 copies/ml was 83.0 vs 81.6%, respectively, when nearly 100% of the two groups of the patients were receiving cART. Throughout the 5 years of follow-up, the overall serological response rate to serotype 19F remained the lowest. In multivariate analysis, vaccination with 2 doses of PCV7 was statistically significantly associated with significant serological response than vaccination with 1 dose (adjusted odds ratio, 1.73 [95% CI, 1.04-2.89]).
Conclusions: Primary vaccination with 2 doses of PCV7 achieves a significantly better serological responses than that with 1 dose among HIV-infected patients throughout the 5 years of follow-up in the era of cART.

OS 7-1

IMPACT OF UP GRADATION OF SURVEILLANCE METHODOLOGY IN HEALTH CARE—ACQUIRED INFECTIONS (HAIS)

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Purpose: Health care—acquired infections (HAIs) have been associated with significant morbidity, mortality and increased health care costs. Surveillance methodology is extremely important to know the actual HAI rate. Manual methods to identify potential HAIs by laboratory results, chart reviews, data entry and looking for associations can be inefficient, labor intensive and error prone. The need for up gradation of the methodology was felt.
Methods: As a step forward, membership of International Nosocomial Infection Control Consortium (INICC) was obtained and participation in "multicenter, multinational, multidimensional study: for surveillance and prevention of device- associated HAIs in intensive care units and of surgical site infection" started after adequate training of dedicated manpower. This surveillance was active, patient-based, prospective and priority directed (automated and electronic).
Results

Infection control indicators	Mean rate (Manual method)	Mean rate (Automated method)	*p*-Value
Central line associated blood stream infection	1.37	8.45	<0.0001
Ventilator associated pneumonia	15.08	7.26	<0.01
Catheter associated urinary tract infection	2.20	7.62	<0.0001
SSI	0.52	2.99	<0.0001
HAI rate/1000 bed days	Not available	2.2	
HAI%/100 discharge	Not available	5.1	

p-values were found statistically significant in every cases.
Conclusions: Automated/electronic surveillance was more efficient than passive, laboratory-based and retrospective manual method and operated with high specificity and positive predictive value.

OS 7-2

DIALYSIS EVENT SURVEILLANCE OF HEMODIALYSIS OUTPATIENTS IN A LARGE HOSPITAL

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Purpose: To monitor the outpatients who receive maintenance hemodialysis in our hospital for dialysis events, investigate the epidemic trend of infection, and provide framework and basis for the formulation and implementation of infection prevention and control measures.
Methods: Surveillance was performed among maintenance hemodialysis outpatients who were dialyzed on the first two working days form Jan 2013 to Dec 2013. Dialysis events, including antimicrobial start, positive blood culture and local access site infections, were monitored. Nurses in the dialysis center were responsible for observation, monitoring, follow-up, and recordings. Infection control nurse from the infection control department was responsible for statistical analysis.
Results: The dialysis center submitted data on 3196 patient-months: 2414 were among patients with fistulas, 16 with grafts, 681 with permanent central lines, 60 with temporary central lines and 25 with others. 237 dialysis events occurred, and the rates among patients with fistulas, grafts, permanent and temporary central lines, and others were 6.6, 0.0 9.7, 18.3 and 4.0 per 100 patient-months, respectively. The most frequent event was antimicrobial start (179 patients represented), and the main way of medication was oral, especially temporary central lines (10.0%). For local access site infection, the pooled mean rate ranged from 0.0 to 0.7 per 100 patient-months, and temporary central lines were also the highest. For positive blood culture, there was only one reported organism (S. aureus) from the permanent central line.
Conclusions: Initial results from this surveillance indicated that antimicrobial start and local access site infection were common in our hospital. These results was beneficial to take corresponding prevention and control measures, and help reduce dialysis events eventually.

OS 7-3

BACTEREMIA IN ADULT PATIENTS WITH HEMATOPOIETIC STEM CELL TRANSPLANTATION: A 10-YEAR EXPERIENCE WITH FLUOROQUINOLONE PROPHYLAXIS OF A SINGLE CENTER IN TAIWAN.

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Purpose: To elucidate clinical outcomes of allogeneic and autologous hematopoietic stem cell transplantation (allo-HSCT and auto-HSCT) recipients with breakthrough bacteremia on fluoroquinolone prophylaxis. Besides, epidemiology and antibiotic sensitivity patterns change of blood isolates were also analyzed.
Methods: The medical records and positive blood isolates of bacteria from HSCT recipients in a single institution with oral levofloxacin prophylaxis (January 2005 to December 2014) were retrospectively reviewed. Comparisons of bacterial epidemiology and antibiotic sensitivity patterns between 2005- 2009 and 2010-2014 were performed.
Results: There were 105 HSCT recipients included, 55 of whom (52.4%) receiving allo-HSCT. Among 105 HSCT recipients, 28 bacteremia episodes occurred in 25 patients (22.8%) with 15 of 55 allo-HSCT recipients (25.4%) and 10 of 50 auto-HSCT recipients (20.0%), respectively. There were no significant impact on in-hospital mortality and hospital stay after HSCT when bacteremia occurred in auto-HSCT recipients but bacteremia happened to allo-HSCT recipients was significantly associated with increased in-hospital mortality after adjustment other infectious complications, age, graft-versus-host disease grades and hematologic recovery status ($p = 0.026$). Among 28 blood isolates from HSCT recipients, Gram-negative bacteria accounted for 53.5% ($n = 15$) with 1 anaerobic bacteria included; 13 of 28 (46.5%) blood isolates were Gram positive. There was no significant change about the ratio of Gram positive to Gram negative bacteria comparing 2010-2014 to 2005-2009. All 15 Gram negative blood isolates were resistant to fluoroquinolones, 12 of whom (80%) were multiple drug resistant. 6 of 13 (46%) Gram positive bacteria were multiple drug resistant. Rate of multiple drug resistant bacteria among blood isolates increased comparing 2014- 2010 to 2005-2009 but the statistic significance was not reached ($p = 0.254$).
Conclusion: Occurrence of bacteremia was associated with increased mortality in patients receiving allo-HSCT recipients. Emergence of the antibiotic resistant bacteria in HCST recipients, especially fluoroquinolone resistant Gram negative isolates, were observed.